

Curriculum vitae

Mgr. Rozálie Hexnerová
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Education:

Since 2014

PhD Student at Institute of Organic Chemistry and Biochemistry, AS CR; enrolled at the PhD programme of Physical Chemistry, Department of Physical and Macromolecular chemistry, Charles University in Prague, Czech Republic

2012-2014

Master programme of Biophysical Chemistry, Department of Physical and Macromolecular chemistry, Charles University in Prague, Czech Republic

2009-2012

Bachelor programme of Biochemistry, Charles University in Prague, Czech Republic

Cambridge Certificate in Advanced English, Level C1

Research Grant: 2015-2017 Structural studies of metabolically active proteins (applicant); Grant agency of Charles University (GAUK 243-227020)

Experience:

molecular biology, protein biochemistry, biophysics, biomolecular NMR

Teaching: Structural biology practical course (Praktikum strukturní biologie MC250P76)

Conferences and courses:

- XV Discussions in Structural Molecular Biology, March 22 – 24, 2018, Nové Hrady, Poster: The TAZ2 (CBP) TAD (C/EBP β) interaction
- 33rd Central European NMR Meeting, April 23 – 25, 2018, Centre of Excellence, Valtice, Czech Republic, Presentation: Structural characterization of B-cell differentiation factor NKX6.1
- Instruct Biennial Structural Biology Meeting, May 24 – 26, 2017, Brno, Czech Republic, Poster: The TAZ2 (CBP) TAD (C/EBPB) interaction
- 32nd Central European NMR Meeting, April 23 – 26, 2017, Valtice Castle, Valtice, Czech Republic, Presentation: Abbreviation paradise: the TAZ2 (CBP) TAD (C/EBPB) interaction
- Instruct practical course: Advanced methods for the integration of diverse structural data with NMR data, April 11 – 15, 2016, Utrecht, Netherlands

- 31st Central European NMR Meeting, April 24 – 27, 2016, Valtice Castle, Valtice, Czech Republic, Presentation: Probing the receptor specificity by sampling the conformational space of insulin-like growth factor II C domain
- Masterclass "Structural studies of macromolecules and protein-ligand complexes", Department of Biochemistry, November 26 – 28, 2014, University of Leicester, Midlands Integrative Biosciences Training Partnership (BBSRC DTP)
- 30th Central European NMR Meeting, April 19 – 22, 2015, Valtice Castle, Valtice, Czech Republic, Presentation: Towards Structural Characterization of Insulin Like Growth Factor II Analogues
- Computational Aspects – Biomolecular NMR, Gordon Research Seminar and Conference, June 6 – 12, 2015, Renaissance Tuscany Il Ciocco Lucca (Barga), Italy, Poster: Probing the receptor specificity for by sampling the conformational space of Insulin like growth factor II

Publications:

H-index: 6; number of citations 90 (Web of Science)

Began, J., Cordier, B., Březinová, J., Delisle, J., Veverka, V., Hexnerová, R., Srb, P., Rampírová, P., Kožíšek, M., Baudet, M., Couté, Y., Galinier, A., Doan, T., and Strisovsky, K. Rhomboid protease licenses membrane protein quality control as adaptor of FtsH AAA protease. *Submitted*

Psenakova, K., Hexnerova, R., Srb, P., Obsilova, V., Veverka, V., and Obsil, T. The redox active site of thioredoxin is directly involved in the inhibition of apoptosis signal-regulating kinase 1 (ASK1) modulated by oxidative stress. *In press*

Gemperle, J., Hexnerova, R., Lepsik, M., Tesina, P., Dibus, M., Novotny, M., Brabek, J., Veverka, V., and Rosel, D. (2017). Structural characterization of CAS SH3 domain selectivity and regulation reveals new CAS interaction partners. *Sci Rep* 7, 8057.

Hexnerova, R., Krizkova, K., Fabry, M., Sieglöva, I., Kedrova, K., Collinsova, M., Ullrichova, P., Srb, P., Williams, C., Crump, M.P., Tosner, Z., Jiracek, J., Veverka, V., and Zakova, L. (2016). Probing Receptor Specificity by Sampling the Conformational Space of the Insulin-like Growth Factor II C-domain. *J Biol Chem* 291, 21234-21245.

Klima, M., Toth, D.J., Hexnerova, R., Baumlova, A., Chalupska, D., Tykvart, J., Rezabkova, L., Sengupta, N., Man, P., Dubankova, A., Humpolickova, J., Nencka, R., Veverka, V., Balla, T., and Boura, E. (2016). Structural insights and in vitro reconstitution of membrane targeting and activation of human PI4KB by the ACBD3 protein. *Sci Rep* 6, 23641.

Nesuta, O., Hexnerova, R., Budesinsky, M., Slaninova, J., Bednarova, L., Hadravova, R., Straka, J., Veverka, V., and Cerovsky, V. (2016). Antimicrobial Peptide from the Wild Bee

Hylaeus signatus Venom and Its Analogues: Structure-Activity Study and Synergistic Effect with Antibiotics. *J Nat Prod* 79, 1073-1083.

Siva, M., Svoboda, M., Veverka, V., Trempe, J.F., Hofmann, K., Kozisek, M., Hexnerova, R., Sedlak, F., Belza, J., Brynda, J., Sacha, P., Hubalek, M., Starkova, J., Flaisigova, I., Konvalinka, J., and Saskova, K.G. (2016). Human DNA-Damage-Inducible 2 Protein Is Structurally and Functionally Distinct from Its Yeast Ortholog. *Sci Rep* 6, 30443.

Vikova, J., Collinsova, M., Kletvikova, E., Budesinsky, M., Kaplan, V., Zakova, L., Veverka, V., Hexnerova, R., Tarazona Avino, R.J., Strakova, J., Selicharova, I., Vanek, V., Wright, D.W., Watson, C.J., Turkenburg, J.P., Brzozowski, A.M., and Jiracek, J. (2016). Rational steering of insulin binding specificity by intra-chain chemical crosslinking. *Sci Rep* 6, 19431.

Krizkova, K., Veverka, V., Maletinska, L., Hexnerova, R., Brzozowski, A.M., Jiracek, J., and Zakova, L. (2014). Structural and functional study of the GlnB22-insulin mutant responsible for maturity-onset diabetes of the young. *PLoS One* 9, e112883.

Drab, T., Kracmerova, J., Hanzlikova, E., Cerna, T., Hexnerova-Litvakova, R., Pohlova, A., Ticha, M., Prikryl, P., and Liberda, J. (2014) The antimicrobial action of histones in the reproductive tract of cow, *Biochemical and biophysical research communications* 443, 987-990.